

Program	Program Nucleu, PN 18 05 02 02
Project title (ENG):	New approaches regarding techniques and methodologies for assessment of air quality in the context of climate change and of the international environmental regulations updating.
Project title (RO):	Noi abordari, tehnici, metode si metodologii de evaluare a calitatii aerului in contextul schimbarilor climatice si al actualizarii reglementarilor internationale de mediu – acronim BATC-AER
Duration	2018
Team Leader	PhD Eng. Elena Bucur
Summary ENG (short description)	<p>The overall objective of the project was the launching of research activities aimed to develop and apply new techniques, methods and methodologies for air quality assessing in the context of climate change and updating of international environmental regulations; were taken into account especially the innovations introduced by provisions (stipulations)/ requirements BAT Conclusions (BATC) adopted by the European Commission Decisions to facilitate the implementation of Directive 2010/75/ EU to control the main industrial activities as well as new areas of research approaches such as air quality biomonitoring and odor emissions assessment. The outcomes of the project, were resulting with: analytical methods for the pollutants determination that kinds that can cause smell discomfort (H₂S, mercaptans), methodologies for assessing the air quality using plants as bio indicators; making odor management plans, using also indirect evaluation methods regarding the emission of pollutants (NH₃ and H₂S) in air – based on the monitoring of process (technological) parameters, the data base containing chemical, microstructure and acoustic parameters of wastes and of the composite materials used to make phono-absorbent panels. The results were disseminated through the participation in scientific activities or in articles accepted for publication in ISI rated journals.</p> <p>Taking into account the actuality and the novelty of the carried researches within the project, it is needed that approached studies to be continued in future projects.</p>
Summary RO (short description)	<p>Obiectivul general al proiectului il reprezinta demararea activitatilor de cercetare vizand dezvoltarea si aplicarea de noi tehnici, metode si metodologii de evaluare a calitatii aerului in contextul schimbarilor climatice si al actualizarii reglementarilor internationale de mediu; s-au avut in vedere cu precadere elementele de noutate introduse prin prevederile/cerintele Concluziilor BAT (BATC) adoptate prin Deciziile Comisiilor Europene in vederea facilitarii implementarii Directivei 2010/75/UE vizand controlul principalelor activitati industriale dar si abordarea de noi domenii de cercetare precum biomonitorizarea calitatii aerului si evaluarea emisiilor de miros. Rezultatele proiectului s-au concretizat in: metode analitice de determinare a unor poluanti care pot genera discomfort olfactiv (H₂S, mercaptani), metodologii de evaluarea a calitatii aerului cu ajutorul plantelor si de elaborare a Planurilor de gestionare miros, metode indirecte de evaluare a emisiilor de poluanti (NH₃ si H₂S) in aer bazate pe monitorizarea parametrilor tehnologici, baza de date cuprinzand caracteristicile chimice, microstructurale si acustice ale deseurilor si materialelor compozite utilizabile pentru obtinerea de panouri</p>

	<p>fonoabsorbante. Rezultatele au fost diseminate prin participari la manifestari stiintifice de profil sau in articole acceptate spre publicare in reviste cotate ISI.</p> <p>Avand in vedere actualitatea si gradul de noutate se impune aprofundarea si continuarea cercetarilor efectuate in viitoare proiecte.</p>
Dissemination of results	
Full-paper ISI	<i>Aspects Regarding the Use of Some Species of Plants as Bioindicators in Air Quality Assessment</i> , Cozea A, Bucur E, Lehr CB, Pascu LF, Tanase G, Revista de Chimie, 2018 – in press;
Conferences (platform, poster, abstract / full-paper)	<i>Determination of sulfur compounds with a strong olfactory impact on the population</i> , Raluca Diodiu, Toma Galaon, Vasile Iancu, Mihaela Petrescu, Mihai Bratu, Valeriu Danciulescu, Andreea Cozea oral communication and conference proceedings on the 21 th International Symposium the Environment and the Industry, 20-21 September 2018, Bucharest;
	<i>New approaches regarding BAT conclusion implementation</i> , Danciulescu V, Cozea A, Petrescu M, Diodiu R, Tanase G, Vasile A, oral communication and poster on the 21 th International Symposium the Environment and the Industry, 20-21 September 2018, Bucharest;
	<i>Microstructural and chemical characterization of some wastes for phonoabsorbant materials obtaining</i> , Bratu M, Pascu LF, Cristea NI, Nicolescu I, oral communication and poster on the 21 th International Symposium the Environment and the Industry, 20-21 September 2018, Bucharest;
	<i>Bioindicators in air quality control</i> , Cozea A, Bucur E, Lehr CB, Pascu LF, Tanase G, oral communication on the 21 th International Symposium the Environment and the Industry, 20-21 September 2018, Bucharest;
	<i>Methods for the odor in ambiental air assessment</i> , Vasile A, Tanase G, Bucur E, oral communication on the 21 th International Symposium the Environment and the Industry, 20-21 September 2018, Bucharest;
	<i>Statistical methods in air pollution control</i> , Bucur E, Vasile A, Pascu LF, Lehr CB, Vasile G, oral communication and poster on the 21 th International Symposium the Environment and the Industry, 20-21 September 2018, Bucharest;